Washington to appear and state our case before the subcommittee of Congress when the next deficiency bill comes up for consideration. If such a visit is made, the results will be announced later.

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III. Agricultural Workers' Health and Medical Association

The efforts made by California Medical Association President Schaupp, to have proposed legislation dealing with the health and medical care of needy agricultural workers of the migratory group amended to conserve health standards and procedures, have been outlined in previous issues of the OFFICIAL JOURNAL. It is gratifying to be able to report that excellent support to our Association's requests was given by Senators Johnson and Downey, and all the Congressmen from California, when they were asked to aid in maintaining the good health work that had been inaugurated.

From Congressman Clarence F. Lea has been received a copy of Public Law 229 (H. J. 208), signed by President Roosevelt on February 14, in which most of the safeguarding provisions advocated for our Association by Doctor Schaupp's Special Committee have been incorporated.

The experience with this measure revealed the willingness of our national legislative representatives to coöperate with us, once the merits of our contentions had been properly explained; showing again the need and value of proper mutual understanding, if legislative objectives are to be realized.

EDITORIAL COMMENT†

"BLOCKADE" SCURVY

A new theory of vitamin deficiency of wide clinical implication is suggested by Woolley and his co-workers[1] of the Rockefeller Institute, the production of a scurvy-like condition in adequately fed mice due to "blockade" by a chemical homolog of ascorbic acid. Of even greater interest is their demonstration that various natural foods contain a specific antidote for this "blockade" scurvy.

Inhibition of the action of certain vitamins by closely related homologs was first demonstrated by Woods[2] and McIlwain[3] of Middlesex Hospital, London. They found that certain compounds closely related to growth-promoting water-soluble vitamins are bacteriostatic, due presumably to a nonreversible chemical union with vitamin-receptors of the bacterial cells. Woolley and his colleagues found an apparently similar blockade effect in mice and rats on oral administration of a homolog of ascorbic acid. This homolog, "gluco-ascorbic acid," bears the same structural relationship to glucose that ascorbic acid does to xylose.

When 5 per cent of this homolog is added to a fully adequate, highly purified basic diet, growth is inhibited in both cotton rats and mice, followed by diarrhea, rapid loss of weight, and subcutaneous hemorrhages, death usually occurring within three weeks. These are the characteristic symptoms of lethal ascorbic acid deficiency in animal species incapable of synthesizing vitamin C. Oral administration of the homolog, therefore, apparently leads to a complete suppression of ascorbic acid metabolism. Oral or subcutaneous administration of ascorbic acid would not prevent or cure the scurvy-like syndrome.

Woolley's most important findings, however, resulted from his attempts to reproduce the same scurvy-like condition in rats and mice fed a mixture of natural foods instead of the highly purified basic diet of their earlier experiments. Even when as much as 10 per cent gluco-ascorbic acid was added to their stock mixture of yellow corn meal, milk powder, casein, linseed oil meal, alfalfa leaf meal, bone ash and sodium chloride, no scurvy-like conditions developed, the only effect being a slight diminution in growth rate. From this they concluded that there is something in natural foods that antagonizes the toxic action or blockading effect of gluco-ascorbic acid.

Various plant materials were assayed for this antidote by adding them to the purified basal ration plus 5 per cent gluco-ascorbic acid. Dehydrated young grass ("cerophyl") was found to be the plant material of highest prophylactic or therapeutic value. Fresh cabbage was but slightly less effective. The curative factor in these foods is not destroyed by cooking.

The suggested theory of homolog blockade of essential vitamins and anti-blockade therapy is of wide clinical implications. Other explanations for the observed phenomena, however, are, of course, possible.

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REFERENCES

1. Woolley, D. W., and Krampitz, L. O.: Jour. Exp. Med., 78:333 (Nov.), 1943.
2. Woods, D. D.: Brit. Jour. Exp. Path., 21:74, 1940.
3. McIlwain, H.: Brit. Jour. Exp. Path., 21:136, 1940.

MEDICAL EPONYM

Wintrich's Phenomenon

This is described by M. Anton Wintrich (1812-1882) in the section "Krankheiten der Respirationsorgane [Diseases of the Organs of Respiration]," in the first section of the fifth volume of Virchow's *Handbuch der speciellen Pathologie und Therapie* (Erlangen, 1854). A portion of the translation follows:

"The change in pitch of the tympanitic note over superficially situated cavities, connected via the bronchi with the trachea, larynx, mouth, and so forth, by a continuous column of air, is a very pretty phenomenon. If the patient closes his mouth or swallows, thus narrowing or closing the opening of the larynx by lowering the epiglottis, the tympanitic note immediately becomes fainter . . . and deeper, and vice versa [when he opens his mouth]."→ R. W. B., in *New England Journal of Medicine.*

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.